

At page 10, line 10, delete "closed", and insert in its place --cloned--.

At page 12, line 1, delete "hsp", and insert in its place --hsp-antigenic molecule complexes--.

At page 12, line 27, delete "to", and insert in its place --of--.

At page 13, lines 27-28, delete ", as described in legend to Fig. 1".

At page 14, line 14, delete "Figure 5. A. ADP-bound and ADP", and insert in its place --FIGS. 5A-B. FIG. 5A: ATP-bound and ATP--.

At page 14, line 15, after "found", insert --not--.

At page 14, line 15-16, delete "B. ATP-bound and ATP", and insert in its place --FIG. 5B: ADP-bound and ADP--.

At page 14, line 16, delete "not".

At page 15, line 17, delete "know", and insert in its place --known--.

At page 16, line 25, insert the following text:

TABLE 1 Enzymes and chaperones that may be involved in protein folding and assembly in cells

| Organism/organelle | Enzymes | | | Chaperones | | |
|--------------------|----------------|---------------------------------------|-----------------------------|-----------------------|-----------------------|--|
| | Protein family | PDI | Cyclophilin PPIase | FKBP PPIase | Hsp60 (Chaperonin-60) | Hsp70 (Stress-70) Hsp90 (Stress-90) |
| <i>E. coli</i> | | | | | | |
| Cytosol | | Thioredoxin | PPIase b | | GroEL | DnaK |
| Periplasm | | | PPIase a (Rotamase) | | | HtpG (C62.5) |
| Yeast | | | | | | |
| Cytosol | | | Cph1p (Cpr1p) | Fkb1p (Fkr1p) (Rbp1p) | | Ssa1-4p Hsp83 Hsc83 |
| ER | | PDI Eug1p | γCyPB | | | Kar2p (BiP) |
| Mitochondria | | | | | Hsp60 (Mif4p) | Ssc1p |
| <i>Drosophila</i> | | | | | | |
| Cytosol | | | CyP | | | Hsp68 Hsp70 Hsc1,2,4 Hsp83 |
| ER | | PDI | NinaA | | | |
| Mammals | | | | | | |
| Cytosol | | | Cyclophilin (PPIase) (CyPA) | FKBP | | Hsp70(p73) Hsc70(p72) (CUATpase) (Prp73) Hsp90 (Hsp83) (Hsp87) |
| ER | | PDI (ERp59) GSBP ERp72 ERp61 | CyPB (rCyPLP) | | | BiP (Grp78) Grp94 (ERp99) (endoplasmin) |
| Mitochondria | | | | | Hsp60 (Hsp58) | Hsp70 (Grp75) |
| Plants | | | | | | |
| Cytosol | | | | | | |
| ER | | PDI | | | | b70(BiP) |
| Chloroplasts | | | | | RuSBP | |

Six protein families have been identified whose members include enzymes or chaperones proposed to be involved in folding, assembly, rearrangement or degradation of proteins in cells. Members that have been characterized to date from a variety of different organisms are shown. Alternative names are shown in parenthesis.

The *S. cerevisiae* genome contains at least nine genes related to HSP70 of higher eucaryotes. Eight of these genes, originally named TG100-YG107, have been renamed on the basis of structural and functional similarities: SSA1-4 (stress seventy family A; YG100, YG102, YG106, YG107,

A1 respectively); SSB1 AND SSB2 (YG101 and YG103, respectively);
SSC1 (YG104); and SSD1 (YG105).--

At page 16, line 27, after "have", insert --not--.

At page 20, line 21, delete "1", and insert in its
place --2--.

At page 28, line 37, delete "oxtyl", and insert in
its place --octyl--.

At page 30, line 3, delete "know", and insert in its
place --known--.

At page 30, line 29, delete "trifluoro acetic" and
insert in its place --trifluoroacetic--.

At page 30, line 32, after "minutes", insert --
resulting in eluted denatured peptide and denatured stress
protein--.

A2 At page 31, lines 8-9, after "(HPLC)" delete "T";
and delete "VYDAC", and insert in its place --VYDAC™
(Separations Group, Inc., Hesperia, CA)--.

A3 At page 36, line 31, after "for 1 hr.", insert --,
thereby forming an ADP-hsp70-peptide complex--.

A4 At page 37, line 8, delete "target", and insert in
its place --tumor--.

At page 37, line 18, delete "target", and insert in
its place --tumor--.

At page 38, line 20, delete "paletted", and insert
in its place --pelleted--.

At page 42, line 27, delete "fungi", and insert in
its place --fungi,--.

At page 47, line 27, delete "irradiate", and insert in its place --eradicate--.

At page 49, line 5, delete "hsp", and insert in its place --hsps and--.

At page 50, line 25, delete "shorted", and insert in its place --shortly--.

At page 50, line 25, delete "need", and insert in its place --needle--.

At page 50, line 33, delete "test", and insert in its place --concentration--.

At page 51, line 4, delete "centrifigation", and insert in its place --centrifugation--.

At page 53, line 10, delete "6138", and insert in its place --UV6138--;

At page 53, line 11, delete "6139ST", and insert in its place --UV6139SJ--;

At page 53, line 12, delete "6138", and insert in its place --UV6138--;

At page 53, line 13, delete "6139SJ", and insert in its place --UV6139SJ--.

At page 54, line 9, delete "UV6139", and insert in its place --UV6139SJ--.

At page 54, line 9, delete "UV6139 SJ", and insert in its place --UV6139S--.

At page 57, line 20, delete "MCTCs", and insert in its place --MLTCs--.

At page 57, line 27, delete "bene", and insert in its place --been--.